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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,877

03/22/2006

Shigenori Shiraishi

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EXAMINER

GALLIS, DAVID E

ART UNIT

PAPER NUMBER

1625

MAIL DATE

DELIVERY MODE

11/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/572,877	SHIRAISHI ET AL.	
	Examiner	Art Unit	
	David E. Gallis	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/22/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 through 11 are pending. Applicants' claim to foreign priority of application JAPAN 2003-333159 filed September 25, 2003 is acknowledged

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 3, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ester et al. (US 4,036,890, July 19, 1977).
4. Claim 1 is drawn to method for collecting an object material from a solution, which comprises a step of adding a second solvent to a solution composed of an object material to be collected and a first solvent, then mixing therewith to form an emulsion containing the object material in the second solvent in a state of which the emulsion is not uniformly dissolved in the second solvent, and a step of separating thus obtained emulsion from the solution. Claim 2 further limits claim 1 requiring that the first solvent be an organic solvent and the second solvent be water. Claim 3 further limits claim 2 requiring that the object material collected by the method be an organic hydroperoxide. Claim 5 further limits claim 1 requiring a further step of collecting the object material from the emulsion.
5. Ester et al. clearly anticipates claim 1 by teaching the isolation of cyclic organic hydroperoxides (see column 1, lines 64 through 66) wherein the hydroperoxide exist

Art Unit: 1625

initially in solution with the organic precursor (the first solvent) from which it was formed which is extracted (the second solvent) forming an aqueous phase and an organic phase in the form of an emulsion. Treatment of this emulsion with a suitable washing agent such as water results in clear separation of the layers, and the organic phase is isolated in a separator (see page 3, lines 5 through 25). Ester et al., clearly anticipates claim 2 teaching a procedure which utilizes an organic first solvent and water as the second solvent (see page 3, lines 5 through 25). Ester et al., clearly anticipates claim 3 teaching a procedure for isolating an organic hydroperoxide (see page 3, lines 5 through 25). Ester et al., clearly anticipates claim 5 teaching the procedure of treating the emulsion with a suitable washing agent (water) and separating it in a second separator (see page 3, lines 5 through 25).

6. Claims 7 through 11 are rejected due their direct or indirect dependency on rejected claim 5.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ester et al. (US 4,036,890, July 19, 1977) as applied to claim 1 above, and further in view of Nekrasov et al. (Chemistry and Technology of Fuels and Oils, 1980, 16(2), 99-103).

9. Claim 4 further limits claim 1 requiring that the emulsion be formed using ultrasonic or mechanical agitation. Claim 1 is fully anticipated by Ester et al as described in the 102(b) rejection above. However, Ester et al. do not teach ultrasonic or mechanical agitation for the formation of the emulsion.

10. Nekrasov et al. teach the production of emulsions using ultrasonic devices (see page 100, para 3, lines 10 and 11; page 102, para 3, lines 1 through 3).

11. Clearly, Ester et al. combined with the teachings of Nekrasov et al. renders obvious all the functional elements of the instant claim 4. It would be obvious to one of ordinary skill to combine the ultrasonic formation of emulsions taught by Nekrasov et al. with the method of object material collection taught by Ester et al.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ester et al. (US 4,036,890, July 19, 1977) as applied to claim 1 above, and further in view of USEPA Contract Laboratory Program Statement of work for Organics Analysis, May 1999, Section 10.1.3.1.3)(CLP SOW).

13. Claim 6 further limits claim 1 requiring that the object material collection from the emulsion comprises centrifugal separation. Claim 1 is fully anticipated by Ester et al as described in the 102(b) rejection above. However, Ester et al. do not teach centrifugal separation in their collection method.

14. The CLP SOW teaches the use of centrifugation to complete the phase separation in an emulsion (page D-34, Section 10.1.3.1.3, lines 13 through 16).

15. Clearly, Ester et al. combined with the teachings of the CLP SOW renders obvious all the functional elements of the instant claim 6. It would be obvious to one of

Art Unit: 1625

ordinary skill to combine the centrifugal emulsion separation taught by the CLP SOW with the method of object material collection taught by Ester et al.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Gallis whose telephone number is 571-272-9068. The examiner can normally be reached on Mon-Thur 8:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-1600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. Gallis
Patent Examiner



BERNARD DENTZ
PRIMARY EXAMINER